



Department of Toxic Substances Control

Matthew Rodriguez
Secretary for
Environmental Protection

Barbara A. Lee, Director
700 Heinz Avenue
Berkeley, California 94710-2721

Edmund G. Brown Jr.
Governor

May 12, 2016

Lorna Goodnight, Environmental Engineer
National Enforcement Investigations Center
Denver Federal Center
P.O. Box 25227, Building 25, Door E-3
Denver, CO 80225

Dear Ms. Goodnight:

On April 4-8, 2016, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), assisted the United States Environmental Protection Agency (USEPA) and the National Enforcement Investigations Center (NEIC) in conducting an inspection of the Dow Chemical Company, Pittsburg, CA. The enclosed report describes the sample collection results of that inspection.

If you have any questions regarding this letter, or if you wish to discuss any questions or concerns you have with the inspection, report, or sample results, please call me at (510) 589-2981.

Sincerely,

Michael Pixton
Senior Environmental Scientist (Spec)
Enforcement and Emergency Response Division

Enclosure

cc: Rick Robison
Senior Environmental Scientist (Sup)
Enforcement and Emergency Response Division

State of California - California Environmental Protection Agency

Department of Toxic Substances Control

AFTER ACTION REPORT

I. GENERAL INFORMATION

Facility Name: The Dow Chemical Company (Dow)

Facility Address: 901 Loveridge Road
Pittsburg, CA

Telephone Number: (925) 432-5000

EPA ID Number: CAD076528678

Facility Type: Large Quantity Generator and RCRA Permit

Type of Business: Dow operations include manufacturing, research and development of chemical products

Waste streams: Waste oil, baghouse waste, asbestos, aqueous solutions, Hydrochloric Acid (HCl), fly ash, off spec organics, spent catalysts, paint sludge, and other various wastes that are generated at chemical plants.

Regulated Units: ST HAF, MS HAF, Monofill

Regulatory Status: Permitted Facility

Owner/Operator: The Dow Chemical Company

Type of Inspection: Technical Assistance to USEPA

DTSC Staff: Teng (Andy) Yang (Environmental Scientist)
Rob Easley (Senior Environmental Scientist)
Michael Pixton (Senior Environmental Scientist)
Shawn Cox (Environmental Scientist)
Eric Brocales (Industrial Hygienist)
Steve Friesen (Industrial Hygienist)

Date(s) of Inspection: April 4-8, 2016

II. NARRATIVE OF OBSERVATIONS

The Department of Toxic Substances Control (DTSC) provided technical assistance to the United States Environmental Protection Agency (USEPA) during the compliance evaluation inspection conducted from April 4th to April 8th 2016. During that time DTSC staff provided insight to the historic operations at the facility and gave feedback on state related issues. In addition, on April 7th DTSC staff collected multiple samples on behalf of USEPA. This after action report will focus on the activities of the

sample collection and reporting the results of those samples.

After the third day of the inspection, the USEPA asked DTSC to collect samples from three locations where the waste water that Dow generates and manages as an excluded recyclable material is stored. It was agreed that for each location samples would be submitted for total metals (TCLP to follow if solids content above 0.1%) and volatile organic chemicals (VOC).

Tank 706 was sampled first. Dow staff stated that the majority of the tank contents had been transferred for treatment a day or two earlier, but that residual contents would be enough to allow for sample collection. DTSC staff suited up in Level B personal protective equipment (PPE) due to the possibility of methylene chloride in the waste water at an unknown concentration. Mr. Pixton collected the sample with Mr. Cox assisting. Mr. Friesen monitored the air during the sample collection (Attachment C). A 16 oz sample was collected for metals analysis and nine 40-ml vials were filled for the volatile organic chemicals analysis. The sample appeared to be clear with no suspended solids.

Dow staff collected their own sample prior to DTSC collecting their sample. Dow staff maintained operational control of the sample valve during the sample collection. While collecting a portion of the VOC sample the Dow technician opened the valve too far causing the waste water to splash over Mr. Pixton and Mr. Cox. Due to the level of PPE used no harm was incurred and aside from wiping down the excess liquid no special decontamination was required.

The next sample location was at the chloranalysis treatment plant, tank 1014A. As with the previous sample, Dow staff collected a sample first and then DTSC collected the metals sample and then the VOC sample. The sample had a light brown color, but was translucent with no suspended solids. The last sample collected was at tank 1014B and followed the same pattern as the previous two. The sample was light tan in color with no suspended solids.

All samples were maintained within DTSC custody and delivered to the DTSC Environmental Chemistry Laboratory for analysis after lunch within hours of when they were collected.

III. SAMPLING ACTIVITIES

Below is a table summarizing the results of the analytical testing as well as the field testing (pH). The pH was measured in the field within 2 hours of sample collection using pH test strips to determine the approximate pH of the waste waters.

Sample Number	pH	Metals	VOC
Dow042016-01	1	1.66 mg/L Zinc	3,260 ug/L methylene chloride
Dow042016-02	11	ND	2,320 ug/L carbon tetrachloride 854 ug/L chloroform 801 ug/L tetrachloroethene
Dow042016-03	14	ND	283 ug/L carbon

			tetrachloride 368 ug/L tetrachloroethene
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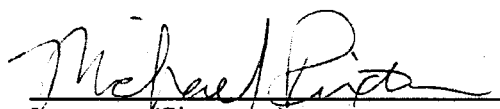
Sample Dow042016-01 was collected from tank T-706 which receives some of its waste from a sump at the Dowicil plant. According to Dow staff the Dowicil plant sump collects wash water from the pad area as well as condensate from the cooling unit. Methylene Chloride is the only solvent used at that plant for the manufacture of the Dowicil product and is the only organic chemical found in the waste water from that plant. This would potentially make the waste water a F002 RCRA hazardous waste.

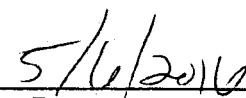
Tanks 1014A & B receive waste waters from a combination of sources. Based on statements made by Dow staff during previous inspections it is DTSC's understanding that the organic chemicals found in samples Dow042016-02 and Dow042016-03 are by-products formed from the pyridine conversion reactions that form the basis of Dow's products.

IV. ATTACHMENTS

- A. Metals analysis (18 pages)
- B. Volatile Organics analysis (24 pages)
- C. Air monitoring data (6 pages)

Michael Pixton, Senior Environmental Scientist
Inspector (Print Name and Title)


Inspector (Signature)


Date